CHANDLER FIRE DEPARTMENT

PLAN REVIEW GUIDE FOR UNDERGROUND FIRE LINES

PROJECT NAME: _____ CITY LOG #: _____
PROJECT ADDRESS: _____ CONTRACTOR: _____
CONTACT PERSON: _____ TELEPHONE #: _____

Underground fire line installation information shall be provided on the appropriate civil drawings. A copy of this guide shall be attached to submitted drawings. **A review will not be conducted without this guide being submitted with the drawings.** All such work **SHALL** be performed by a contractor licensed by the State to do such work and who holds a current valid permit from the Fire Department to work within the City of Chandler.

Circle the number when completed.

The following items shall be included on the drawings. Place initials beside each item to indicate information is included on or submitted with the drawings. Place N/R for items not required by the code. Place N/A for items non-applicable.

1. Yes____No____ A detector check valve assembly for the underground fire line is installed because there is a capability for on site private fire hydrants or other means of flowing water without sounding an alarm.

2. The plans are drawing to scale and include:
   _____ A. Size and location of city water main(s) supplying underground fire line(s).
   _____ B. Type, class, depth or burial, size, and location of all new underground fire line piping.
   _____ C. Location(s) and type of on site fire hydrant(s).
   _____ D. Location(s) of fire sprinkler(s) and/or standpipe rise(s), and monitor nozzles (if any), to be supplied by underground fire lines(s).

3. Fire Department "General Notes to the Contractor" are provided on the plans.

4. Location and distance dimensions to all existing fire hydrants on City mains, within 300 feet of the site property lines are provided on the plans.

5. The plans indicate that the number and distribution of fire hydrants available for the site and building(s) are in accordance with FD standards.

6. The plans indicate that underground fire lines are NOT located within retention basins or public utility easements.

7. The plans indicate underground fire line maximum lengths do not exceed:

   _____ A. Six inch diameter dead end lines shall not exceed 300 feet in length.
   _____ B. Eight inch diameter dead end lines shall not exceed 1200 feet in length.
   _____ C. Six inch-looped lines shall not exceed 1200 feet in length.

8. The plans indicate that fire line pipe is either DIP Class 350 pipe, or PVC C-900, 150 psi or PVC C-905, 235 psi pipe.

9. The plans indicate that a metallic warning tape shall be installed in accordance with the manufacturers installation instructions when non-metallic piping is used for underground fire lines.

10. The plans include the appropriate fire line connection detail for backflow prevention assemblies, underground check valves, fire department connections, and post indicating valves.

11. The plans indicate that all fire line control valves:
    _____ A. Are of the indicating type.
    _____ B. Are above ground.
    _____ C. The top of valve housings are 36 inches above final grade.
    _____ D. Are to be color coded and signed in accordance with FD standards.

12. The plans indicate that all fire line backflow prevention assemblies, underground check valves, fire department connections (FDC), and fire line control valves are located within landscaped or planter areas.

13. The plans indicate looped underground fire lines are provided with sectional control valves installed at appropriate locations to permit isolation of portions of the system in the event of a break, or to facilitate repairs or extensions to the system.

14. The plans indicate that all stub out or future connections on underground fire lines shall terminate with post indicator valves only.

15. The plans indicate that Siamese fire department connections (FDC) are installed as follows:
    _____ A. A minimum of one fire department connection is provided for single underground fire lines supplying a single riser.
    _____ B. A minimum of two fire department connections, located remote for each other, are provided for looped underground fire lines supplying multiple risers. More than two FDC's may be required as determined by plan review.

16. The plans indicate that FDC's:
    _____ A. Are located on private property six to ten feet behind curbs of a permanent entrance to the site.
    _____ B. Will not obstruct public or private sidewalks.
    _____ C. Are located within landscaped or planter areas.
    _____ D. Are located within 150 feet of a fire hydrant connected to a public water main.
    _____ E. Are signed in accordance with FD Details 101, or 102.
    _____ F. Are not located in a retention area or behind walls.
    _____ G. Is three (3) foot clearance around the FDC (No landscaping, Bushes, Trees or River Rock).

17. The plans indicate that tapping sleeves are not used on any portion of the underground fire line downstream of the underground check valve or backflow prevention assembly.

18. The plans indicate that uni-flange devices are not installed on aboveground piping.

19. The plans indicate that all system components are listed or approved for fire protection use by an approved testing agency.

20. A sectional control PIV shall be installed on a looped fire line to provide isolation of the fire line. Each branch fire line shall have a riser control PIV for individual riser. The PIV shall be located as close to the riser as practical.

21. All stub out and temporary fire line terminations (phased projects) shall end with a PIV painted forest green.